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import java.awt.*;
import java.awt.event.*;
import java.util.*;
import javax.swing.*;

public class traffic extends JFrame implements ItemListener
{
    JRadioButton jr1;
    JRadioButton jr2;
    JRadioButton jr3;

    ButtonGroup b = new ButtonGroup();

    int x = 0, y = 0, z = 0;
    public traffic()
    {
        super();
        setLayout(new FlowLayout());

        jr1 = new JRadioButton("Red");
        jr2 = new JRadioButton("Yellow");
        jr3 = new JRadioButton("Green");

        jr1.addItemListener(this);
        jr2.addItemListener(this);
        jr3.addItemListener(this);

        add(jr1);
        add(jr2);
        add(jr3);
        b.add(jr1);
        b.add(jr2);
        b.add(jr3);

        addWindowListener(new WindowAdapter()
        {
            public void windowClosing(WindowEvent e)
            {
                System.exit(0);
            }
        });
    }

    public void itemStateChanged(ItemEvent ie)
    {
        if (ie.getSource() == jr1)
        {
            if (ie.getStateChange() == 1)
            {
                x = 1;
                repaint();
            }
        }

        if (ie.getSource() == jr2)
        {

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        if (ie.getStateChange() == 1)
        {
            y = 1;
            repaint();
        }
    }

    if (ie.getSource() == jr3)
    {
        if (ie.getStateChange() == 1)
        {
            z = 1;
            repaint();
        }
    }
}

public void paint(Graphics g)
{
    g.fillRect(200,130,100,260);
    g.setColor(Color.BLACK);
    g.fillRect(235,390,30,110);
    g.setColor(Color.BLACK);
    g.drawOval(220, 150, 62, 62);
    g.drawOval(220, 230, 62, 62);
    g.drawOval(220, 310, 62, 62);

    if (x == 1)
    {
        g.setColor(Color.RED);
        g.fillOval(220, 150, 60, 60);
        g.setColor(Color.WHITE);
        g.fillOval(220, 230, 60, 60);
        g.setColor(Color.WHITE);
        g.fillOval(220, 310, 60, 60);
        x = 0;
    }

    if (y == 1)
    {
        g.setColor(Color.WHITE);
        g.fillOval(220, 150, 60, 60);
        g.setColor(Color.YELLOW);
        g.fillOval(220, 230, 60, 60);
        g.setColor(Color.WHITE);
        g.fillOval(220, 310, 60, 60);
        y = 0;
    }

    if (z == 1)
    {
        g.setColor(Color.WHITE);
        g.fillOval(220, 150, 60, 60);
        g.setColor(Color.WHITE);
        g.fillOval(220, 230, 60, 60);
        g.setColor(Color.GREEN);
        g.fillOval(220, 310, 60, 60);
    }
}

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        z = 0;
    }
}

public static void main(String args[])
{
    JFrame jf = new traffic();

    jf.setSize(500, 500);
    jf.setVisible(true);
}
}

```

OUTPUT

